

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims

1. (Currently Amended) A method ~~[[in]]~~ of switching a data flow of information packets between a sending and receiving entity, the method comprising:
buffering in a queue, the packets received from a plurality of paths ~~in a queue~~;
~~noting portions in the queue attributable to each separate path within the plurality of paths;~~

determining from a congestion indicator that a congestion condition exists in the queue;

determining a number of packets received from each of the plurality of paths;
sending a halt message to a sending entity corresponding to a halted given path ~~occupying a predetermined percentage of the queue~~ from which the greatest number of packets was received in the queue;

determining if there is a free switch state ~~corresponding to~~ associated with the queue, wherein the states are either free or set, and each set state corresponds to a halted path,

if yes, then:

storing an indicator of the halted given path in a free switch state including storing an indicator of the bandwidth associated with the halted path;

if no, then:

establishing a chronological order ~~of the~~ in which the set states were set;
determining an older portion of the set states; and
purging the set state ~~for a path having the smallest bandwidth~~ in said older part of the states corresponding to a halted path that has been halted the fewest number of times, and

successively updating the congestion indicator ~~of the bandwidth~~ when the queue reaches a congestion condition.

2. (Original) The method of claim 1 further comprising reusing the purged state.

3. (Original) The method of claim 1 further comprising determining the queue congestion by a threshold.

4. (Canceled)

5. (Currently Amended) The method of claim 1 wherein the state includes a counter field, and ~~that the path bandwidth is noted in said counter field as the number of times the respective path has been found to occupy the individually greatest portion of~~ have provided the greatest number of packets in the queue.

6. (Currently Amended) A device for switching a data flow of information packets intended for paths between a respective sending and receiving entity, the device comprising:

a queue device for buffering the packets received from the paths;

a device for halting a sending entity ~~[[on]]~~ upon detecting congestion of the queue, wherein the device for halting has means for halting the sending entity for the path ~~occupying the individually greatest portion of the queue from which the greatest~~ number of packets was received in the queue;

switch states for storing ~~the~~ a halt condition whenever a corresponding path is halted, wherein ~~the switch states have a means for storing a bandwidth~~ each set switch state stores an indicator for indicating a number of times the state's corresponding halted path has been halted;

~~a means for noting the individual portions that different of the paths occupy in the~~ queue;

means for determining a number of packets received in the queue from each of the plurality of paths;

[[a]] means for successively updating in each set state, the respective ~~bandwidth indicator of halted paths~~ indicator for indicating the number of times the state's corresponding halted path has been halted, as the queue is repeatedly congested;

[[a]] means for establishing a chronological order ~~of the~~ in which the set states were set;

[[a]] means for determining an older part of the set states; and

[[a]] means for purging the set state ~~for a path having the smallest bandwidth~~ in said older part of the states corresponding to a halted path that has been halted the fewest number of times.

7. (Original) The device of claim 6 wherein the purged state is adapted to be reused.

8. (Original) The device of claim 6 further comprising a threshold detector for determining the congestion of the queue.

9. (Canceled)

10. (Currently Amended) The device of ~~claims~~ claim 6 wherein the state includes a counter field, and ~~that the arrangement has~~ the device includes means for noting the path bandwidth in said counter field as the number of times the respective path has been found to ~~occupy the individually greatest portion of~~ have provided the greatest number of packets in the queue.